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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/724,923

12/01/2003

Shenghong A. Dai

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09/20/2007

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EXAMINER

NILAND, PATRICK DENNIS

ART UNIT

PAPER NUMBER

1714

MAIL DATE

DELIVERY MODE

09/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/724,923

Applicant(s)

DAI ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-37, 40-51 and 57-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-37, 43, 45, 46, 49, 51, 57-60 and 62-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/5/07</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The amendment of 7/3/07 has been entered. Claims 24-37, 40-51 and 57-68 are pending.

2. Claims 24-37, 40-51, and 57-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A. There is not support in the originally filed specification for the claims as amended, particularly the newly recited limitation “where the aliphatic polyisocyanate has primary or secondary isocyanate”. The species referenced in the sections cited as support for this limitation cannot support the entire genus. There is no basis in the originally filed specification for requiring the polyisocyanates to have “primary or secondary isocyanate”. There is no inference that the isocyanates of the instant invention are required to have “primary or secondary isocyanate”. The effective exclusion of polyisocyanates that do not have “primary or secondary isocyanate” is new matter under *Ex parte Grasselli*, 231 USPQ 393-395.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 24-37, 43, 45-46, 49, 51, 57-60, 62-65 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5202377 Thorne et al..

Thorne discloses a polyisocyanate mixture falling within the scope of the instant claims at column 9, lines 15-30. The excess isocyanurate will give the instantly claimed mixture of a and b. The isocyanurate is a "urea derivative". The NCO groups are primary. The mixture is heated. Though the example is comparative, it was still done and is therefore prior art for anticipation purposes. Isocyanurate is or contains trimer. Claim 29 does not require specifically the option with the other isocyanate so the patentee's example reads on this claim where the option of claim 24 using only one isocyanate is exercised. The Jeffamine used falls within the scope of the instant claims including the claimed number average molecular weights. The further examples make aqueous coatings from the isocyanates of the other examples which fall within the scope of the claims directed to aqueous resin adhesives since coatings must adhere to substrates. See column 10, lines 7-14, column 14, lines 5-10 and the remainder of the document. The applicant's arguments do not address this issue in the patent.

6. Claims 24-37, 40-51 and 57-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 3903126 Woerner et al. in view of US Pat. No. 5202377 Thorne et al..

Woerner discloses the instantly claimed invention with the exception of the issues relating to making aqueous dispersions and aqueous adhesives. See the entire document, particularly the examples which use biurets of hexamethylene diisocyanate and the instantly claimed reaction temperatures and times with diamines that do not have ether segments. It is noted that this patent

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is from the early seventies when organic solvents were not as regulated and aqueous compositions were relatively new. Now, organic solvents are heavily regulated and aqueous compositions are commonplace, as shown by Thorne.

It would have been obvious to one of ordinary skill in the art to use the instantly claimed polyether containing diamines as the diamines of Woerner to obtain the benefits of the compositions and methods of making them described by Woerner so as to have hydrophilic polyisocyanates result by their content of ethylene oxide that can be dispersed in water and to use these hydrophilic polyisocyanate mixtures that would result from the method of Woerner in aqueous compositions to obtain the benefits of the methods of Woerner and to comply with modern EPA regulations against volatile organic content.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patrick D. Niland
Primary Examiner
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